

**SOUTH PARK BRIDGE – FINAL DESIGN
95% DESIGN SUBMITTAL**

**OPEN ISSUES LIST (OIL)
November 4, 2009**

The SPB 95% Design submittal describes the proposed South Park Bridge replacement to a level less than that necessary for “Issue for Bid” construction documents. Provided below is list of outstanding issues yet to be addressed. This is provided to document the status of the documents and assist in review of the 95% Design submittal. The open issues are intended to be resolved prior to the 100% Final Design submittal.

General

1. Complete the test pile program – scheduled for week of December 7.
2. Address need for protection of existing bridge during construction. (Pending test pile program).
3. Incorporate test pile findings into Special Provisions for bidders’ and construction contractor’s use.
4. Complete hazardous waste inventory of existing bridge and incorporate into the special provisions – pending results of S&W’s work.
5. Complete cultural resources investigation – HRA presently moving forward.
6. Develop cross reference matrix for pay items as requested by KC.
7. Develop a uniform approach to justification of proprietary items call for the contract documents.
8. Run final seismic analysis of completed bascule spans.
9. Address provisions for open-water dumping in construction documents.
10. Identify/confirm permit requirements for inclusion in special provisions – requires coordination with KC.
11. Consolidate project specific environmental permit requirements (in addition to the ones from BO) in the Environmental Considerations Matrix.
12. Develop “best understanding” of contaminated vs. hazardous material limitations/locations in the form of a plan sheet. Incorporate information into the special provisions. Coordination with KC required.
13. Reconcile “Working Days” in Special Provisions with construction schedule
14. Reconcile index of sheets with final sheets and sheet count.

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GN General

SQ Summary of Quantities

1. Complete characterization of the soils within the upper 18 feet of the caisson excavation with regard to contaminated or hazardous status.

2. Characterize the upland soils of the north and south ends of the project with regards to contamination and/or hazardous status. – Pending KC input for Boeing area and Windward testing in the waterway.
3. Develop cost estimates for the following Force Account items require updated estimate:
 - a) Reimbursement for Third Party Damages - To be provided by KC
 - b) Crack Sealing
 - c) Anti-Stripping Additive
 - d) Hazardous Material Handling and Disposal
4. Determine what is in Roadway & Structural Excavation vs. Hazmat Excavation.
5. Complete a verification set of quantity calculations.
6. Distribute quantities between participants on SQ sheets.

RS Roadway Sections

AL Alignment and Right of Way

SA Staging Areas

1. Modified the limits of construction such that the boat ramp will remain serviceable (SA01).

SP Site Preparation

1. Identify the limits and extent of removal of riprap and debris within the tidal zone of the shorelines.

EN Erosion Control Structure Notes

EC Erosion Control

1. Finalize TESC at the shoreline mitigation work and north bank.
2. Confirm temporary fencing with Boeing.
3. Confirm the location of the hazardous and contamination on the upland side.
4. Determine who will monitor turbidity – construction contractor or agency?
5. Define “Sand Blanket” in plans or special provisions.
6. Identify County provided areas for stockpiling (if any).
7. Finalize specifications.

ED Erosion Control Structure Notes

RD Roadway Plan and Profile

1. Provide the volume of unsuitable soils in the profile sheets. To be completed once areas are well defined.
2. Update Roadway Excavation limits based on South Park Marina ROW Negotiations.

RD Driveway Plan and Profile

SF Fencing Plan

1. Show detail of generator set concrete apron, location, gates, access points.
2. Provide N,E coordinates for the location of the fence.

RD Intersection Plan

RW Retaining Walls

1. Integrate additional reinforcement requirements for light pole anchorages.
2. Integrate requirement for pedestrian curb cuts & anchorages for gear mounting.
3. Integrate requirements for anchorages for pedestrian railing anchorages.

GR Grading Sheets

1. Complete detailing of north/south riverbank grading and treatment.

DN Drainage Structure Notes

DR Drainage Plan and Profile

1. Finalize design of rain garden maintenance access from Boat Access.
2. Add structure and pipe from Boat Access Road auto loading dock to the rain garden inlet structure.
3. Address the need for monitoring of existing buildings during trenching operation for stormwater and utilities.
4. Incorporate COS drainage specifications into WSDOT specifications.
5. Integrate sidewalk drainage plumbing with moment slab.
6. Coordinate casings with ABKJ.
7. Revise SEW footing drains to discharge above ground instead of catch basin or manhole.

DD Drainage Details

IL Illumination

1. Address the size of pole for the lighting protection air terminal mounting.

UT Utility Plans

1. Detail utility routing within bascule piers.
2. Provide final direction to Utility Companies regarding relocates.
3. Sanitary Sewer Flow Meter at Boeing connection.
4. Update elevation of utility where it meets the control tower.
5. Prepare water line conflict exhibit.
6. Follow up with Boeing on the layout of the telecommunications line.
7. Confirm that the two spare ducts are carried from end of project to end of project.
8. Provide a sleeve to the sanitary and water lines to accommodate for the maximum movement between the bascule and the approach span.
9. Determine if cable (Comcast) or fiber optics (Qwest) will be used to connect the Control Towers with the bridge owner's computer system.

CH Channelization and Signing

1. Address who and how signage will be provided and installed in the plans or special provisions.

LS Landscape Plans

1. Complete structural detailing of pedestrian landings.
2. Complete north embankment restoration, once grading has been determined.
3. Add grout color for brick paving to specifications.

LM Shoreline Mitigation

1. Add 3-man boulders to specifications
2. Update specifications to address soil compaction for restoration area.
3. Provide Special Provisions for log anchors and chains.
4. Provide Special Provisions for Wildlife predation netting.

TC Traffic Control

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GN General

BG Bridge General

SB Soil Borings

AS Approach Structures

1. Integrate additional reinforcement requirements for light pole anchorages.
2. Integrate requirement for pedestrian curb cuts & anchorages for gear mounting.
3. Integrate requirements for anchorages for pedestrian railing anchorages.
4. Detail longitudinal joint at interface of approach spans and bascule pier.
5. Detail termination of Transflex joints.

PP Pier Protection

1. Revise plans from “through-bolted” configuration to “bolt-on” configuration.
2. Integrate drawings (BE21) to accommodate installation of air horn (mid-height plastic lumber rail needed).
3. Integrate drawings (BP45) to accommodate installation pier protection access walkway/stairs.

CS Construction Sequence

DM Demolition

1. Provide wharf demolition plan(s) / details / specifications.

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GN General

BG Bridge General

BC Bascule Caisson

1. Modify caisson special provision to include payment for the caisson cofferdams.

BP Bascule Pier

1. Detail lifting eyes / derricks / overhead cranes as deemed necessary to aid in machinery maintenance.

2. Specify and show location for workbench with vise and storage cabinets in plans – locate on equipment level.
3. Complete detailing for bird control in Wall 2.
4. Detail openings for live load shoes in Wall 2.
5. Detail longitudinal joints of counterweight span.
6. Detail / specify waterstops.
7. Modify access platforms for new trunnion frame.
8. Detail trunnion frame connection to caisson cap.
9. Detail stairs to protection pier access door.
10. Detail utility penetrations and sleeves.
11. Show limits of mass pour concrete, limits of deck concrete.
12. Detail Control Tower roof diaphragm.
13. Specify concrete mix for Class 4000WT (watertight) concrete.
14. Integrate additional reinforcement requirements for light pole anchorages.
15. Integrate requirements for anchorages for pedestrian railing anchorages.
16. Identify in special provisions that the location of the horizontal construction joints are at the construction contractor's option.
17. Identify in the special provisions that the use of mechanical splices for the vertical reinforcement is at the construction contractor's option a – lap splices may be used in lieu of mechanical splices.

CT Control Tower

1. Resolve utility routing within the control tower.
2. Reconcile / combine abbreviations with those provided on GN03.
3. Detail support and roof penetration for marine band radio.
4. Show electrical equipment on equipment level.

TF Trunnion Frame

1. Design and detail girder stops for bridge in full open position.
2. Complete detailing of TF sheets.

BL Bascule Leaves

1. Design and detail heel locks to allow the bridge to be locked in the full open position.

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GN General

BG Bridge General

PR Pedestrian Railing

1. Separate pedestrian railing drawings into complimentary sets for the bridge contractor and pedestrian railing fabricator.

2. Revisit details of the horizontal member “sleeves” to ensure the connection is relatively solid.
3. Complete detailing of gear post details (PR20-24)
4. Update quantities in special provisions.
5. Address material requirements for stainless steel in special provisions.

AF Art Features (Rockers)

1. Need to add the art feature shafts to the table in special provisions Section 6-19.

TR Traffic Barrier

1. Detail radiused traffic barrier connection at interface between the bascule pier and the bascule span.

PM Bascule Mechanical

1. Design and detail water spigots (for maintenance purposes) within the bascule piers and on the roadway surface.
2. Specify an on-demand water heater.

FP Fire Protection

1. Verify clear between fire line and bascule girder at tail.

BM Bascule Mechanical

1. Evaluate the need for, and potential for, placement of lift points within the bascule pier for maintenance purposes (also shown under BP)
2. Specify temperature controls with deadband.
3. Specify programmable thermostat for heat pump.
4. Specify an acoustic monitoring system for the mechanical components.
5. Detail / specify ready reference drawings for mechanical components to be displayed in close proximity to the equipment.
6. Provide bascule pier sump and sump pump details.

BE Bascule Electrical

1. Provide limit switch drawings
2. Specify two-way intercom to entrance of Control Towers.
3. Specify that the construction contractor may not utilize the genset for purposes of providing temporary power for construction.

AP Attenuation Pile